

Claims

1. Control device (10) with haptic feedback with at least one actuating element (12), at least one switching device (14) and at least one positioning device (16), wherein
 - the at least one actuating element (12) can be displaced in at least one degree of freedom,
 - the at least one actuating element (12) includes at least one display device (18), and
 - a force can be applied by the at least one positioning device (16) to the at least one actuating element (12).
2. Control device (10) according to claim 1, characterized in that the at least one display device (18) can be freely programmed.
3. Control device (10) according to one of the claims 1 to 2, characterized in that the at least one display device (18) is programmed so that the available display area of the at least one display device (18) can be divided into at least one display field (20; 26).
4. Control device (10) according to claim 3, characterized in that at least one switching device (14) can be associated with the at least one display field (20) and can be activated by a force applied to the at least one actuating element (12) or the at least one switching device (14) in the region of the at least one display field (20).
5. Control device (10) according to one of the claims 1 to 4, characterized in that the at least one switching device (14) comprises a pushbutton, a switch, a touch-sensitive

foil, and the like.

6. Control device (10) according to one of the claims 1 to 5, characterized in that at least one graphic object (24) can be displayed by the at least one display device (18).

7. Control device (10) according to claim 6, characterized in that the at least one graphic object (24) represents an alphanumeric character, a graphic symbol, an image, and the like.

8. Control device (10) according to one of the claims 1 to 7, characterized in that the at least one positioning device (16) comprises a resilient element, a rubber cross (22), an electromechanical actuator, a pneumatic actuator, a piezoelectric actuator, and the like.

9. Control device (10) according to one of the claims 1 to 8, characterized in that the control device (10) comprises a hollow body (34) with at least one opening.

10. Control device (10) according to claim 9, characterized in that the at least one actuating element (12) is guided in the hollow body (34) in at least one spatial direction.

11. Control device (10) according to claim 10, characterized in that the movement of the at least one actuating element (12) in the at least one spatial direction is limited by a limit stop element (36).

12. Control device (10) according to one of the claims 1 to 11, characterized in that the control device (10) is integrated in an operator island (28).

13. Control device (10) according to claim 12, characterized in that the operator island includes at least one operating element (30; 32).

14. Control device (10) according to claim 13, characterized in that the at least one operating element (30; 32) comprises a pushbutton, a switch, a knob, and the like.

15. Control device (10) according to one of the claims 13 to 14, characterized in that at least one function of the at least one operating element (30; 32) and/or at least one state of the at least one operating element (30; 32) can be visualized with the at least one display device (18).

16. Control device (10) according to one of the claims 1 to 15, characterized in that the at least one display device (18) includes at least one auxiliary touch sensor that supports the selection on the touchpad.

17. Control device (10) according to claim 16, characterized in that the at least one auxiliary touch sensor is formed as an indentation and/or a raised portion of the display surface of the at least one display device (18).

18. Control device (10) according to one of the claims 16 to 17, characterized in that the at least one auxiliary touch sensor is formed as a point, a line, a rubber cross, a plastic cross, and the like.

19. Control device (10) according to one of the claims 1 to 18, characterized in that the at least one display device (18) is circular, polygonal, and the like.

20. Control device (10) according to one of the claims 1 to 19, characterized in that the at least one display device (18) comprises a liquid crystal display (LCD), a light emitting diode (LED), an organic light emitting diode (OLED), a light emitting diode array, an array of organic light emitting diodes, and the like.

21. Use of a control device (10) according to at least one of the claims 1 to 20 as a control element for automobiles, airplanes, ships, and the like.

22. Use of a control device (10) according to at least one of the claims 1 to 20 as a control element for window lifters, childproofing, illumination devices, climate controls, audio systems, video systems, telephone systems, gearshift selectors, sunroofs, ventilator roofs, solar roofs, vehicle seats, computer systems, and the like.